

## **ABSTRACT**

An optical disk apparatus according to the present invention includes: a motor for rotating an optical disk; a light source; diffraction means for diffracting a portion of light emitted from the light source to form a main beam of 0<sup>th</sup> order light and a pair of sub beams composed of +1<sup>st</sup> order light and -1<sup>st</sup> order light which are formed on both sides of the 0<sup>th</sup> order light; an objective lens for converging the main beam and the pair of sub beams onto the optical disk; a light receiving means for receiving the main beam and the sub beams reflected from the optical disk, and outputting electrical signals through photoelectric conversion; and a calculation section for, based on the electrical signals output from the light receiving means, providing a main push-pull signal MPP, a sub push-pull signal SPP, and a differential signal between the main push-pull signal MPP and the sub push-pull signal SPP. A phase difference detection means for detecting a phase difference between the main push-pull signal MPP and the differential signal is further

included, and in accordance with an output from the phase difference detection means, an offset is applied in a tracking control of the main beam with respect to the optical disk to compensate for an off-tracking caused by a phase shift of the differential signal.